AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1-26. (**Canceled**).

27. (**Currently amended**) A method for reducing spatial or declarative memory dysfunction caused by damaged hippocampal tissue in a mammal exhibiting spatial or declarative memory dysfunction, comprising the steps of: determining the existence of spatial or declarative memory dysfunction, and administering OP-1 to the mammal; ~~a morphogen comprising a conserved C-terminal seven cysteine skeleton that is one or more of the following:~~

~~(a) at least about 60% identical to residues 330-431 of human OP-1 (SEQ ID NO: 2); and~~

~~(b) at least about 70% homologous to residues 330-431 of human OP-1 (SEQ ID NO: 2),~~

wherein the damaged hippocampal tissue is damaged by permanent or transient global ischemia.

28. (**Currently amended**) The method of claim 27, wherein said OP-1 ~~morphogen~~ stimulates synapse formation between hippocampal neurons.

29. (**Currently amended**) The method of claim 28, wherein said OP-1 ~~morphogen~~ comprises residues 30-292 of SEQ ID NO:2.

30. (**Currently amended**) The method of claim 28, wherein said OP-1 ~~morphogen~~ comprises residues 330-431 of SEQ ID NO:2.

31. (**Currently amended**) The method of claim 28, wherein said OP-1 ~~morphogen~~ comprises residues 48-292 of SEQ ID NO:2.

32. (**Currently amended**) The method of claim 28, wherein said OP-1

~~morphogen~~ comprises the amino acid sequence of SEQ ID NO:2.

33. **(Canceled)**.

34. **(Currently amended)** The method of claim 28, wherein said OP-1 ~~morphogen~~ comprises a mature form of human OP-1, defined by residues 293-431 of SEQ ID NO: 2.

35-42. **(Canceled)**.

43. **(Currently amended)** The method of claim 27, wherein the OP-1 ~~morphogen~~ is administered by intraventricular administration.

44. **(Currently amended)** The method of claim 27, wherein the OP-1 ~~morphogen~~ is disposed in a biocompatible microsphere.

45. **(Canceled)**.

46. **(Currently amended)** A method for reducing spatial or declarative memory dysfunction caused by damaged hippocampal tissue in a mammal exhibiting spatial or declarative memory dysfunction, comprising the steps of: determining the existence of spatial or declarative memory dysfunction, and administering OP-1 to the mammal; ~~a morphogen comprising a conserved C-terminal seven-cysteine skeleton that is one or more of the following:~~

~~(a) at least about 60% identical to residues 330-431 of human OP-1 (SEQ ID NO: 2); and~~

~~(b) at least about 70% homologous to residues 330-431 of human OP-1 (SEQ ID NO: 2),~~

wherein the damaged hippocampal tissue is damaged by ibotenic acid, ammonia and formaldehyde.

47. **(Canceled)**.

48. **(Currently amended)** A method for reducing spatial or declarative memory dysfunction caused by damaged hippocampal tissue in a mammal exhibiting spatial or declarative memory

dysfunction, comprising the steps of: determining the existence of spatial or declarative memory dysfunction, and administering OP-1 to the mammal; ~~a morphogen comprising a conserved C-terminal seven-cysteine skeleton that is one or more of the following:~~

~~(a) at least about 60% identical to residues 330-431 of human OP-1 (SEQ ID NO: 2); and~~

~~(b) at least about 70% homologous to residues 330-431 of human OP-1 (SEQ ID NO: 2),~~

wherein the damaged hippocampal tissue is damaged by malnutrition, glucose metabolism disorder, or anorexia.

49-50. **(Canceled)**.

51. **(Previously presented)** The method of claim 48, wherein the mammal is afflicted with malnutrition.

52. **(Previously presented)** The method of claim 48, wherein the mammal is afflicted with a glucose metabolism disorder.

53. **(Previously presented)** The method of claim 48, wherein the mammal is afflicted with anorexia.

54. **(New)** The method of claim 46 or 48, wherein said OP-1 comprises residues 30-292 of SEQ ID NO:2.

55. **(New)** The method of claim 46 or 48, wherein said OP-1 comprises residues 330-431 of SEQ ID NO:2.

56. **(New)** The method of claim 46 or 48, wherein said OP-1 comprises residues 48-292 of SEQ ID NO:2.

57. **(New)** The method of claim 46 or 48, wherein said OP-1 comprises the amino acid sequence of SEQ ID NO:2.

58. **(New)** The method of claim 46 or 48, wherein said OP-1 comprises a mature form of human OP-1, defined by residues 293-431 of SEQ ID NO: 2.

59. **(New)** The method of claim 46 or 48, wherein the OP-1 is administered by intraventricular administration.

60. **(New)** The method of claim 46 or 48, wherein the OP-1 is disposed in a biocompatible microsphere.